

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Wohlstadter et al.
 Application No. : 10/693,441
 Filed : October 24, 2003
 For : **MULTI-ARRAY, MULTI-SPECIFIC
ELECTROCHEMILUMINESCENCE TESTING**
 Group Art Unit : Unassigned
 Examiner : Unassigned

Commissioner for Patents
 P.O. Box 1450
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Mary W. Richardson
 Mary W. Richardson, Registration No. 48,320
 Kramer Levin Nafatlis & Frankel LLP

TRANSMITTAL LETTER

Sir:

Transmitted herewith is:

- [X] Information Disclosure Statement
- [X] Information Disclosure Statement By Applicant (PTO/SB/08a and PTO/SB/08b)
- [X] Copy of each of the Foreign Patent Documents cited on Form PTO/SB/08a.
- [X] Copy of each of the Non-Patent Literature Documents cited on Form PTO/SB/08b.
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- [X] Acknowledgement postcard.

Customer No. 35745

Attorney Docket No. 100405-02274

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Dated: December 18, 2003

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Signature: Mary W. Richardson
Mary W. Richardson, Reg. No. 48,320
Kramer, Levin, Naftalis & Frankel LLP

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicants respectfully submit this Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.97 and 1.98 in order to comply with the duty of disclosure set forth in 37 C.F.R. § 1.56. These references are listed herein and on the PTO Form No. PTO/SB/08a & PTO/SB/08b submitted herewith. It is respectfully requested that the information be expressly considered during the prosecution of this application and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

I. U.S. PATENTS

1. Oberhardt, et al., U.S. Patent No. 4,280,815, issued July 28, 1981.
2. Jolley, U.S. Patent No. 4,652,533, issued March 24, 1987.

3. Tennent, U.S. Patent No. 4,663,230, issued May 5, 1987.
4. Guire, et al., U.S. Patent No. 4,826,759, issued May 2, 1989.
5. Hubscher, U.S. Patent No. 4,891,321, issued January 2, 1990.
6. Zoski, et al., U.S. Patent No. 5,061,445, issued October 29, 1991.
7. Hall, et al., U.S. Patent No. 5,068,088, issued November 26, 1991.
8. Leventis, et al., U.S. Patent No. 5,093,268, issued March 3, 1992.
9. Friend, U.S. Patent No. 5,098,771, issued March 24, 1992.
10. Friend, et al., U.S. Patent No. 5,110,693, issued May 5, 1992.
11. Yasuda, et al., U.S. Patent No. 5,124,075, issued June 23, 1992.
12. Kamin, et al., U.S. Patent No. 5,147,806, issued September 15, 1992.
13. Tennent, et al., U.S. Patent No. 5,165,909, issued November 24, 1992.
14. Tennent, U.S. Patent No. 5,171,560, issued December 15, 1992.
15. Leventis, et al., U.S. Patent No. 5,189,549, issued February 23, 1993.
16. Clark, et al., U.S. Patent No. 5,194,133, issued March 16, 1993.
17. Bard, et al., U.S. Patent No. 5,221,605, issued June 22, 1993.
18. Bard, et al., U.S. Patent No. 5,238,808, issued August 24, 1993.
19. Shibue, et al., U.S. Patent No. 5,240,863, issued August 31, 1993.
20. Hall, et al., U.S. Patent No. 5,247,243, issued September 21, 1993.
21. Hall, et al., U.S. Patent No. 5,296,191, issued March 22, 1994.
22. Goto, et al., U.S. Patent No. 5,304,326, issued April 19, 1994.
23. Kankare, et al., U.S. Patent No. 5,308,754, issued May 3, 1994.
24. Bard, et al., U.S. Patent No. 5,310,687, issued May 10, 1994.
25. Zhang, et al., U.S. Patent No. 5,324,457, issued June 28, 1994.

26. Ullman, et al., U.S. Patent No. 5,340,716, issued August 23, 1994.
27. Kimura, et al., U.S. Patent No. 5,418,171, issued May 23, 1995.
28. Ghaed, et al., U.S. Patent No. 5,466,416, issued November 14, 1995.
29. Bogart, et al., U.S. Patent No. 5,468,606, issued November 21, 1995.
30. Malmqvist, et al., U.S. Patent No. 5,492,840, issued February 20, 1996.
31. Nacamulli, et al., U.S. Patent No. 5,527,710, issued June 18, 1996.
32. Massey, et al., U.S. Patent No. 5,591,581, issued January 7, 1997.
33. Heller, et al., U.S. Patent No. 5,632,957, issued May 27, 1997.
34. Hashimoto, et al., U.S. Patent No. 5,776,672, issued July 7, 1998.
35. Wohlstadter, et al., U.S. Patent No. 6,413,783, issued July 2, 2002.

II. FOREIGN PATENT PUBLICATIONS

1. Shah, H.P., *et al.*, PCT International Publication No. WO 90/05301, published May 17, 1990.
2. Bening, R.C., *et al.*, PCT International Publication No. WO 90/14221, published November 29, 1990.
3. Leland, J.K., *et al.*, PCT International Publication No. WO 92/14139, published August 20, 1992.
4. Bard, A.J., *et al.*, PCT International Publication No. WO 96/06946, published March 7, 1996.
5. Martin, M., PCT International Publication No. WO 96/39534, published December 12, 1996.
6. Hashimoto, K., *et al.*, European Patent No. 0 478 319 A1, published April 1, 1992.

7. Shibue, A., *et al.*, European Patent No. 0 522 677 A1, published January 13, 1993.

III. PUBLICATIONS

1. Abbott, N.L. and Whitesides, G.M., "Potential-Dependent Wetting of Aqueous Solutions on Self-Assembled Monolayers Formed from 15-(Ferrocenylcarbonyl) pentadecanethiol on Gold," *Langmuir* 10(5): 1493-1497 (1994).
2. Abbott, N.L., *et al.*, "Manipulation of the Wettability of Surfaces on the 0.1 - to 1-Micrometer Scale Through Micromatching and Molecular Self-Assembly," *Science* 257: 1380-1382 (1992).
3. Abbott, N.L., *et al.*, "Using Micromachining, Molecular Self-Assembly, and Wet Etching to Fabricate 0.1-1 μ m-Scale Structures of Gold and Silicon," *Chem. Mater.* 6(5): 596-602 (1994).
4. Adalsteinsson, O., *et al.*, "Preparation and Magnetic Filtration of Polyacrylamide Gels Containing Covalently Immobilized Proteins and a Ferrofluid," *J. Mol. Catal.* 6(3): 199-225 (1979).
5. Bain, C.D. and Whitesides, G.M., "Modeling Organic Surfaces with Self-Assembled Monolayers," *Angew. Chem.* 101(4): 522-528 (1989).
6. Bains, W., "Setting a Sequence to Sequence a Sequence," *Bio/Technology* 10: 757-758 (1992).
7. Chaudhury, M.K. and Whitesides, G.M., "Correlation Between Surface Free Energy and Surface Constitution," *Science* 255: 1230-1232 (1992).
8. Chaudhury, M.K. and Whitesides, G.M., "How To Make Water Run Uphill," *Science* 256: 1539-1541 (1992).

9. Deaver, D.R., "A New Non-Isotopic Detection System for Immunoassays," *Nature* 377: 758-760 (1995).
10. DiMilla, P.A., *et al.*, "Wetting and Protein Adsorption of Self-Assembled Monolayers of Alkanethiolates Supported on Transparent Films of Gold," *J. Am. Chem. Soc.* 116(5): 2225-2226 (1994).
11. Dresselhaus, M.S., Dresselhaus, G., and Eklund, P.C., Science Of Fullerenes And Carbon Nanotubes, Academic Press, San Diego, CA (1996).
12. Ferguson, G.S., *et al.*, "Monolayers on Disordered Substrates: Self-Assembly of Alkyltrichlorosilanes on Surface-Modified Polyethylene and Poly(dimethylsiloxane)," *Macromolecules* 26: 5870-5875 (1993).
13. Ferguson, G.S., *et al.*, "Contact Adhesion of Thin Gold Films on Elastomeric Supports: Cold Welding Under Ambient Conditions," *Science* 253: 776-778 (1991).
14. Gershon, P.D. and Khilko, S., "Stable Chelating Linkage for Reversible Immobilization of Oligohistidine Tagged Proteins in the BIACore Surface Plasmon Resonance Detector," *J. Immunol. Methods* 183: 65-76 (1995).
15. Haapakka, K.E., "The Mechanism of the Cobalt(II)-Catalyzed Electrogenerated Chemiluminescence of Luminol in Aqueous Alkaline Solution," *Anal. Chim. Acta* 141: 263-268 (1982).
16. Hickman, J.J., *et al.*, "Molecular Self-Assembly of Two-Terminal Voltametric Microsensors with Internal References," *Science* 252: 688-691 (1991).
17. Hydrogels In Medicine And Pharmacy, Vols. I-III. Peppas, N.A., Ed.. CRC Press: Boca Raton, Florida (1987).

18. Itaya, K. and Bard, A.J., "Chemically Modified Polymer Electrodes: Synthetic Approach Employing Poly(methacryl chloride) Anchors," *Anal. Chem.* 50(11): 1487-1489 (1978).
19. Kaneko, E., Liquid Crystal TV Displays: Principles And Applicants Of Liquid Crystal Displays (Advances in Optoelectronics, No. 2). KTK Scientific Publishers, Tokyo; D. Reidel Publishing Co., Dordrecht. Chapter 2: 3-32 (1987).
20. Kim, E., *et al.*, "Polymer Microstructures Formed by Moulding in Capillaries," *Nature* 376: 581-584 (1995).
21. Knight, A.W. and Greenway, G.M., "Occurrence, Mechanisms and Analytical Applications of Electrogenerated Chemiluminescence," *Analyst* 119: 879-890 (1994).
22. Kumar, A. and Whitesides, G.M., "Features of Gold Having Micrometer to Centimeter Dimensions Can Be Formed Through a Combination of Stamping with an Elastomeric Stamp and an Alkanethiol 'Ink' Followed by Chemical Etching," *Appl. Phys. Lett.* 63(14): 2002-2004 (1993).
23. Kumar, A., *et al.*, "Patterning Self-Assembled Monolayers: Applications in Materials Science," *Langmuir* 10: 1498-1511 (1994).
24. Laibinis, P.E., *et al.*, "Orthogonal Self-Assembled Monolayers: Alkanethiols on Gold And Alkane Carboxylic Acids on Alumina," *Science* 245: 845-847 (1989).
25. Leland, J.K. and Powell, M.J., "Electrogenerated Chemiluminescence: An Oxidative-Reduction Type ECL Reaction Sequence Using Tripropyl Amine," *J. Electrochem. Soc.* 137: 3127-3131 (1990).
26. Martin, A.F. and Nieman, T.A., "Glucose Quantitation Using an Immobilized Glucose Dehydrogenase Enzyme Reactor and a Tris(2,2'-bipyridyl)ruthenium (II)

CHEMILUMINESCENT SENSOR," *Anal. Chim. Acta* 281: 475-481 (1993).

27. Martin, A.F. and Nieman, T.A., "CHEMILUMINESCENCE BIOSENSORS USING TRIS (2,2'-BIPYRIDYL)RUTHENIUM(II) AND DEHYDROGENASES IMMOBILIZED IN CATION EXCHANGE POLYMERS,"

Biosensors & Bioelect. 12(6): 479-489 (1997).

28. Methods in Enzymology. Volume 135. Immobilized Enzymes And Cells. Pt. B.

Mosbach, K., Ed. Academic Press: Orlando, Florida; Elsevier Applied Science: London (1987).

29. Methods in Enzymology. Volume 136. Immobilized Enzymes And Cells. Pt. C.

Mosbach, K., Ed. Academic Press: Orlando, Florida; Elsevier Applied Science: London (1987).

30. Nielsen, P.E., "DNA ANALOGUES WITH NONPHOSPHODIESTER BACKBONES," *Ann. Rev. Biophys. Biomol. Struct.* 24: 167-183 (1995).

31. Obeng, Y.S. and Bard, A.J., "ELECTROGENERATED CHEMILUMINESCENCE. 53. ELECTROCHEMISTRY AND EMISSION FROM ADSORBED MONOLAYERS OF A TRIS(BIPYRIDYL)RUTHENIUM(II)-BASED SURFACTANT ON GOLD AND TIN OXIDE ELECTRODES," *Langmuir* 7(1): 195-201 (1991).

32. Olah, G.A., et al., "POLYMER FILMS ON ELECTRODES. 4. NAFION-COATED ELECTRODES AND ELECTROGENERATED CHEMILUMINESCENCE OF SURFACE-ATTACHED RU(BPY)₃²⁺," *J. Am. Chem. Soc.* 102: 6641-6642 (1980).

33. Pale-Grosdemange, C., et al., "FORMATION OF SELF-ASSEMBLED MONOLAYERS BY CHEMISORPTION OF DERIVATIVES OF OLIGO (ETHYLENE GLYCOL) OF STRUCTURE HS(CH₂)₁₁(OCH₂CH₂)_mOH ON GOLD," *J. Am. Chem. Soc.* 113(1): 12-20 (1991).

34. Pollack, A., et al., "ENZYME IMMOBILIZATION BY CONDENSATION COPOLYMERIZATION INTO CROSS-LINKED POLYACRYLAMIDE GELS," *J. Am. Chem. Soc.* 102(20): 6324-6336 (1980).

35. Poly(ethylene Glycol) Chemistry: Biotechnical and Biomedical Applications.
Harris, J.M., Ed. Plenum Press: New York (1992).
36. Polymer Applications For Biotechnology: Macromolecular Separation And Identification. Soane, D.S., Ed. Prentice Hall: Englewood Cliffs, N.J. (1992).
37. Prime, K.L., and Whitesides, G.M., "Adsorption of Proteins onto Surfaces Containing End-Attached Oligo (ethylene oxide): A Model System Using Self-Assembled Monolayers," *J. Am. Chem. Soc.* 115(23): 10714-10721 (1993).
38. Prime, K.L. and Whitesides, G.M., "Self-Assembled Organic Monolayers: Model Systems for Studying Adsorption of Proteins at Surfaces," *Science* 252: 1164-1167 (1991).
39. Rubinstein, I. and Bard, A.J., "Polymer Films on Electrodes. 4. Nafion-Coated Electrodes and Electrogenerated Chemiluminescence of Surface-Attached Ru(bpy)₃²⁺," *J. Am. Chem. Soc.* 102: 6641-6642 (1980).
40. Rubinstein, I. and Bard, A.J., "Polymer Films on Electrodes. 5. Electrochemistry and Chemiluminescence at Nafion-Coated Electrodes," *J. Am. Chem. Soc.* 103(17): 5007-5013 (1981).
41. Sassenfeld, H.M., "Engineering Proteins for Purification," *TIBTECH* 8: 88-93 (1990).
42. Solid Phase Biochemistry: Analytical And Synthetic Aspects. Scouten, W.H., Ed. J. Wiley & Sons, NY (1993).
43. Spinke, J., *et al.*, "Molecular Recognition at Self-Assembled Monolayers: Optimization of Surface Functionalization," *J. Chem. Phys.* 99(9): 7012-7019 (1993).
44. Spinke, J., *et al.*, "Molecular Recognition at Self-Assembled Monolayers: The Construction of Multicomponent Multilayers," *Langmuir* 9(7): 1821-1825 (1993).

45. Strezoska, Z., *et al.*, "DNA Sequencing by Hybridization: 100 Bases Read by a Non-Gel-Based Method," *Proc. Natl. Acad. Sci. USA* 88: 10089-10093 (1991).
46. Sundberg, S.A., *et al.*, "Spatially-Addressable Immobilization of Macromolecules on Solid Supports," *J. Am. Chem. Soc.* 117(49): 12050-12057 (1995).
47. Tampion, J. and Tampion, M.D., Immobilized Cells: Principles And Applications. Cambridge Univ. Press, Cambridge, U.K. (1987).
48. Wilbur, J.L., *et al.*, "Scanning Force Microscopies Can Image Patterned Self-Assembled Monolayers," *Langmuir* 11(3): 825-831 (1995).
49. Wilson, R., *et al.*, "Electrochemiluminescence Detection of Glucose Oxidase as a Model for Flow Injection Immunoassays," *Biosensors & Bioelec.* 11(8): 805-810 (1996).
50. Xu, X.-H. and Bard, A.J., "Electrogenerated Chemiluminescence. 55. Emission from Adsorbed Ru(bpy)₃²⁺ on Graphite, Platinum, and Gold," *Langmuir* 10(7): 2409-2414 (1994).
51. Xu, X.-H., *et al.*, "Immobilization of DNA on an Aluminum (III) Alkanebisphosphonate Thin Film with Electrogenerated Chemiluminescent Detection," *J. Am. Chem. Soc.* 116(18): 8386-8387 (1994).
52. Yang, H., *et al.*, "Electrochemiluminescence: A New Diagnostic and Research Tool," *Bio/Technology* 12: 193-194 (1994).
53. Zhang, X. and Bard, A.J., "Electrogenerated Chemiluminescent Emission from an Organized (L-B) Monolayer of a Ru(bpy)₃²⁺-Based Surfactant on Semiconductor and Metal Electrodes", *J. Phys. Chem.* 92(2): 5566-5569 (1988).

REMARKS

A copy of each of the Foreign Patent Documents cited on Form PTO/SB/08a and each of the Non-Patent Literature Documents cited on Form PTO/SB/08b is provided herewith, along with the Forms PTO/SB/08a and PTO/SB/08b, which are provided in duplicate.

This Information Disclosure Statement is not a representation that the documents cited herein are considered most pertinent, or that a search has been undertaken, or that any of the cited documents is indeed prior art. The Examiner is invited to undertake an independent search.

Pursuant to Rule 37 C.F.R. § 1.97(b), an Information Disclosure Statement shall be considered by the Patent Office if filed before the mailing date of the first Official Action on the merits. Accordingly, no fee is believed necessary for entry and consideration of this Information Disclosure Statement. However, the Commissioner is hereby authorized to charge any fee required or credit any overpayment in such fees to Deposit Account No. **50-0540**.

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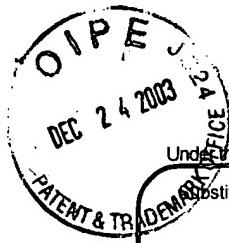
Dated: December 18, 2003

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Application Number	Unassigned
Filing Date	October 24, 2003
First Named Inventor	Wohlstadter et al.
Art Unit	Unassigned
Examiner Name	Unassigned

Attorney Docket Number 100405-02274

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)	(if known)			
	AA	US-4,280,815		07-28-1981	Oberhardt, et al.	
	AB	US-4,652,533		03-24-1987	Jolley	
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	AF	US-5,061,445		10-29-1991	Zoski, et al.	
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	AZ	US-5,340,716		08-23-1994	Ullman, et al.	
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	AGG	US-5,632,957		05-27-1997	Heller, et al.	
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	AII	US-6,413,783		07-02-2002	Wohlstadter, et al.	

FOREIGN PATENT DOCUMENTS

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		Country Code ³	Number ⁴ - Kind Code ⁵ (if known)				
	BA	PCT	WO 90/05301	05-17-1990	Shah, H.P., et al.		
	BB	PCT	WO 90/14221	11-29-1990	Bening, R.C., et al.		
	BC	PCT	WO 92/14139	08-20-1992	Leland, J.K., et al.		
	BD	PCT	WO 96/06946	03-07-1996	Bard, A.J., et al.		
	BE	PCT	WO 96/39534	12-12-1992	Martin, M.		
	BF	EP	0 478 319 A1	04-01-1992	Hashimoto, K., et al.		
	BG	EP	0 522 677 A1	01-13-1003	Shibue, A., et al.		

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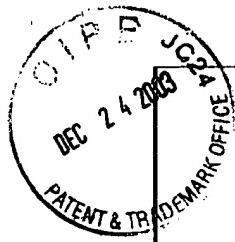
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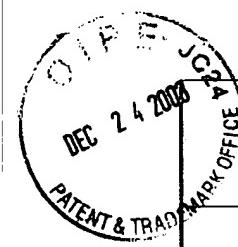
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	CA	Abbott, N.L. and Whitesides, G.M., "Potential-Dependent Wetting of Aqueous Solutions on Self-Assembled Monolayers Formed from 15-(Ferrocenylcarbonyl) pentadecanethiol on Gold," <i>Langmuir</i> 10(5): 1493-1497 (1994).	
	CB	Abbott, N.L., <i>et al.</i> , "Manipulation of the Wettability of Surfaces on the 0.1 - to 1-Micrometer Scale Through Micromatching and Molecular Self-Assembly," <i>Science</i> 257: 1380-1382 (1992).	
	CC	Abbott, N.L., <i>et al.</i> , "Using Micromachining, Molecular Self-Assembly, and Wet Etching to Fabricate 0.1-1μm-Scale Structures of Gold and Silicon," <i>Chem. Mater.</i> 6(5): 596-602 (1994).	
	CD	Adalsteinsson, O., <i>et al.</i> , "Preparation and Magnetic Filtration of Polyacrylamide Gels Containing Covalently Immobilized Proteins and a Ferrofluid," <i>J. Mol. Catal.</i> 6(3): 199-225 (1979).	
	CE	Bain, C.D. and Whitesides, G.M., "Modeling Organic Surfaces with Self-Assembled Monolayers," <i>Angew. Chem.</i> 101(4): 522-528 (1989).	
	CF	Bains, W., "Setting a Sequence to Sequence a Sequence," <i>Bio/Technology</i> 10: 757-758 (1992).	
	CG	Chaudhury, M.K. and Whitesides, G.M., "Correlation Between Surface Free Energy and Surface Constitution," <i>Science</i> 255: 1230-1232 (1992).	
	CH	Chaudhury, M.K. and Whitesides, G.M., "How To Make Water Run Uphill," <i>Science</i> 256: 1539-1541 (1992).	
	CI	Deaver, D.R., "A New Non-Isotopic Detection System for Immunoassays," <i>Nature</i> 377: 758-760 (1995).	



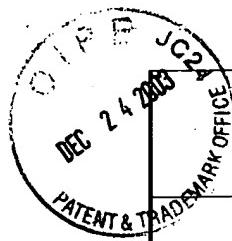
	CJ	DiMilla, P.A., <i>et al.</i> , "Wetting and Protein Adsorption of Self-Assembled Monolayers of Alkanethiolates Supported on Transparent Films of Gold," <i>J. Am. Chem. Soc.</i> 116(5): 2225-2226 (1994).	
	CK	Dresselhaus, M.S., Dresselhaus, G., and Eklund, P.C., <u>Science Of Fullerenes And Carbon Nanotubes</u> , Academic Press, San Diego, CA (1996).	
	CL	Ferguson, G.S., <i>et al.</i> , "Monolayers on Disordered Substrates: Self-Assembly of Alkyltrichlorosilanes on Surface-Modified Polyethylene and Poly(dimethylsiloxane)," <i>Macromolecules</i> 26: 5870-5875 (1993).	
	CM	Ferguson, G.S., <i>et al.</i> , "Contact Adhesion of Thin Gold Films on Elastomeric Supports: Cold Welding Under Ambient Conditions," <i>Science</i> 253: 776-778 (1991).	
	CN	Gershon, P.D. and Khilko, S., "Stable Chelating Linkage for Reversible Immobilization of Oligohistidine Tagged Proteins in the BIACore Surface Plasmon Resonance Detector," <i>J. Immunol. Methods</i> 183: 65-76 (1995).	
	CO	Haapakka, K.E., "The Mechanism of the Cobalt(II)-Catalyzed Electrogenerated Chemiluminescence of Luminol in Aqueous Alkaline Solution," <i>Anal. Chim. Acta</i> 141: 263-268 (1982).	
	CP	Hickman, J.J., <i>et al.</i> , "Molecular Self-Assembly of Two-Terminal Voltametric Microsensors with Internal References," <i>Science</i> 252: 688-691 (1991).	
	CQ	<u>Hydrogels In Medicine And Pharmacy</u> , Vols. I-III. Peppas, N.A., Ed.. CRC Press: Boca Raton, Florida (1987).	
	CR	Itaya, K. and Bard, A.J., "Chemically Modified Polymer Electrodes: Synthetic Approach Employing Poly(methacryl chloride) Anchors," <i>Anal. Chem.</i> 50(11): 1487-1489 (1978).	
	CS	Kaneko, E., <u>Liquid Crystal TV Displays: Principles And Applications Of Liquid Crystal Displays (Advances in Optoelectronics, No. 2)</u> . KTK Scientific Publishers, Tokyo; D. Reidel Publishing Co., Dordrecht. Chapter 2: 3-32 (1987).	
	CT	Kim, E., <i>et al.</i> , "Polymer Microstructures Formed by Moulding in Capillaries," <i>Nature</i> 376: 581-584 (1995).	
	CU	Knight, A.W. and Greenway, G.M., "Occurrence, Mechanisms and Analytical Applications of Electrogenerated Chemiluminescence," <i>Analyst</i> 119: 879-890 (1994).	



	CV	Kumar, A. and Whitesides, G.M., "Features of Gold Having Micrometer to Centimeter Dimensions Can Be Formed Through a Combination of Stamping with an Elastomeric Stamp and an Alkanetriol 'Ink' Followed by Chemical Etching," <i>Appl. Phys. Lett.</i> 63(14): 2002-2004 (1993).	
	CW	Kumar, A., <i>et al.</i> , "Patterning Self-Assembled Monolayers: Applications in Materials Science," <i>Langmuir</i> 10: 1498-1511 (1994).	
	CX	Laibinis, P.E., <i>et al.</i> , "Orthogonal Self-Assembled Monolayers: Alkanethiols on Gold And Alkane Carboxylic Acids on Alumina," <i>Science</i> 245: 845-847 (1989).	
	CY	Leland, J.K. and Powell, M.J., "Electrogenerated Chemiluminescence: An Oxidative-Reduction Type ECL Reaction Sequence Using Tripropyl Amine," <i>J. Electrochem. Soc.</i> 137: 3127-3131 (1990).	
	CZ	Martin, A.F. and Nieman, T.A., "Glucose Quantitation Using an Immobilized Glucose Dehydrogenase Enzyme Reactor and a Tris(2,2'-bipyridyl)ruthenium (II) Chemiluminescent Sensor," <i>Anal. Chim. Acta</i> 281: 475-481 (1993).	
	CAA	Martin, A.F. and Nieman, T.A., "Chemiluminescence Biosensors Using Tris (2,2'-bipyridyl)ruthenium(II) And Dehydrogenases Immobilized in Cation Exchange Polymers," <i>Biosensors & Bioelect.</i> 12(6): 479-489 (1997).	
	CBB	<u>Methods in Enzymology. Volume 135. Immobilized Enzymes And Cells. Pt. B.</u> Mosbach, K., Ed. Academic Press: Orlando, Florida; Elsevier Applied Science: London (1987).	
	CCC	<u>Methods in Enzymology. Volume 136. Immobilized Enzymes And Cells. Pt. C.</u> Mosbach, K., Ed. Academic Press: Orlando, Florida; Elsevier Applied Science: London (1987).	
	CDD	Nielsen, P.E., "DNA Analogues with Nonphosphodiester Backbones," <i>Ann. Rev. Biophys. Biomol. Struct.</i> 24: 167-183 (1995).	
	CEE	Obeng, Y.S. and Bard, A.J., "Electrogenerated Chemiluminescence. 53. Electrochemistry and Emission from Adsorbed Monolayers of a Tris(bipyridyl)ruthenium(II)-Based Surfactant on Gold and Tin Oxide Electrodes," <i>Langmuir</i> 7(1): 195-201 (1991).	
	CFF	Olah, G.A., <i>et al.</i> , "Polymer Films on Electrodes. 4. Nafion-Coated Electrodes and Electrogenerated Chemiluminescence of Surface-Attached Ru(bpy) ₃ ²⁺ ," <i>J. Am. Chem. Soc.</i> 102: 6641-6642 (1980).	
	CGG	Pale-Grosdemange, C., <i>et al.</i> , "Formation of Self-Assembled Monolayers by Chemisorption of Derivatives of Oligo (ethylene glycol) of Structure HS(CH ₂) ₁₁ (OCH ₂ CH ₂) _m OH on Gold," <i>J. Am. Chem. Soc.</i> 113(1): 12-20 (1991).	



	CHH	Pollack, A., <i>et al.</i> , "Enzyme Immobilization by Condensation Copolymerization into Cross-Linked Polyacrylamide Gels," <i>J. Am. Chem. Soc.</i> 102(20): 6324-6336 (1980).	
	CII	<u>Poly(ethylene Glycol) Chemistry: Biotechnical and Biomedical Applications</u> , Harris, J.M., Ed. Plenum Press: New York (1992).	
	CJJ	<u>Polymer Applications For Biotechnology: Macromolecular Separation And Identification</u> . Soane, D.S., Ed. Prentice Hall: Englewood Cliffs, N.J. (1992).	
	CKK	Prime, K.L., and Whitesides, G.M., "Adsorption of Proteins onto Surfaces Containing End-Attached Oligo (ethylene oxide): A Model System Using Self-Assembled Monolayers," <i>J. Am. Chem. Soc.</i> 115(23): 10714-10721 (1993).	
	CLL	Prime, K.L. and Whitesides, G.M., "Self-Assembled Organic Monolayers: Model Systems for Studying Adsorption of Proteins at Surfaces," <i>Science</i> 252: 1164-1167 (1991).	
	CMM	Rubinstein, I. and Bard, A.J., Polymer Films on Electrodes. 4. Nafion-Coated Electrodes and Electrogenerated Chemiluminescence of Surface-Attached Ru(bpy) ₃ ²⁺ ," <i>J. Am. Chem. Soc.</i> 102: 6641-6642 (1980).	
	CNN	Rubinstein, I. and Bard, A.J., "Polymer Films on Electrodes. 5. Electrochemistry and Chemiluminescence at Nafion-Coated Electrodes," <i>J. Am. Chem. Soc.</i> 103(17): 5007-5013 (1981).	
	COO	Sassenfeld, H.M., "Engineering Proteins for Purification," <i>TIBTECH</i> 8: 88-93 (1990).	
	CPP	<u>Solid Phase Biochemistry: Analytical And Synthetic Aspects</u> . Scouten, W.H., Ed. J. Wiley & Sons, NY (1993).	
	CQQ	Spinke, J., <i>et al.</i> , "Molecular Recognition at Self-Assembled Monolayers: Optimization of Surface Functionalization," <i>J. Chem. Phys.</i> 99(9): 7012-7019 (1993).	
	CRR	Spinke, J., <i>et al.</i> , "Molecular Recognition at Self-Assembled Monolayers: The Construction of Multicomponent Multilayers," <i>Langmuir</i> 9(7): 1821-1825 (1993).	
	CSS	Strezoska, Z., <i>et al.</i> , "DNA Sequencing by Hybridization: 100 Bases Read by a Non-Gel-Based Method," <i>Proc. Natl. Acad. Sci. USA</i> 88: 10089-10093 (1991).	
	CTT	Sundberg, S.A., <i>et al.</i> , "Spatially-Addressable Immobilization of Macromolecules on Solid Supports," <i>J. Am. Chem. Soc.</i> 117(49): 12050-12057 (1995).	
	CUU	Tampion, J. and Tampion, M.D., <u>Immobilized Cells: Principles And Applications</u> . Cambridge Univ. Press, Cambridge, U.K. (1987).	



	cvv	Wilbur, J.L., <i>et al.</i> , "Scanning Force Microscopies Can Image Patterned Self-Assembled Monolayers," <i>Langmuir</i> 11(3): 825-831 (1995).	
	cww	Wilson, R., <i>et al.</i> , "Electrochemiluminescence Detection of Glucose Oxidase as a Model for Flow Injection Immunoassays," <i>Biosensors & Bioelec.</i> 11(8): 805-810 (1996).	
	cxx	Xu, X.-H. and Bard, A.J., "Electrogenerated Chemiluminescence. 55. Emission from Adsorbed Ru(bpy) ₃ ²⁺ on Graphite, Platinum, and Gold," <i>Langmuir</i> 10(7): 2409-2414 (1994).	
	cyy	Xu, X.-H., <i>et al.</i> , "Immobilization of DNA on an Aluminum (III) Alkanebisphosphonate Thin Film with Electrogenerated Chemiluminescent Detection," <i>J. Am. Chem. Soc.</i> 116(18): 8386-8387 (1994).	
	czz	Yang, H., <i>et al.</i> , "Electrochemiluminescence: A New Diagnostic and Research Tool," <i>Bio/Technology</i> 12: 193-194 (1994).	
	CAAA	Zhang, X. and Bard, A.J., "Electrogenerated Chemiluminescent Emission from an Organized (L-B) Monolayer of a Ru(bpy) ₃ ²⁺ -Based Surfactant on Semiconductor and Metal Electrodes", <i>J. Phys. Chem.</i> 92(2): 5566-5569 (1988).	

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